

We Claim:

1. A method for actively managing an account through volatility arbitrage and harvesting, comprising the steps of:
- (A) establishing a tracking basket containing a plurality of equities, the equities in the tracking basket being included in an underlying index and together possessing at least one of:
1. A high degree of correlation to the underlying index; and
 2. A predetermined volatility differential relative to the underlying index; and
- (B) dynamically hedging the tracking basket using options.
2. The method as in claim 1, wherein the establishing step comprises executing an optimization routine on a programmed computer against at least one predetermined constraint, the optimization routine compiling the tracking basket to include a set of equities and a quantity of each equity in the set.
3. The method as in claim 2, wherein the at least one predetermined constraint is that a prescribed percentage of the tracking basket consist of equities having a minimum volatility differential relative to the underlying index.
4. The method as in claim 3, wherein all of the equities in the tracking basket have a minimum volatility differential relative to the underlying index.

5. The method as in claim 3, wherein a second predetermined constraint is that the tracking basket be less than a predetermined percentage of the underlying index.
- 5 6. The method as in claim 1, wherein the establishing step includes a regression analysis which results in a tracking basket that achieves an r^2 value, relative to the underlying index, above a predetermined value.
- 10 7. The method as in claim 6, wherein the r^2 value is 0.8 or higher.
- 10 8. The method as in claim 6, wherein the r^2 value is maximized.
- 15 9. The method as in claim 6, wherein the establishing step further includes swapping equities into and out of the tracking basket and repeating the regression analysis until a tracking basket is identified that achieves the r^2 value above the predetermined value.
- 15 10. The method as in claim 1, wherein the establishing step results in a tracking basket which includes less than a predetermined percentage of the underlying index.
- 20 11. The method as in claim 10, wherein the predetermined percentage is 70%, whereby the tracking basket is not substantially identical to the underlying index.
12. The method as in claim 1, wherein the hedging step is performed in accordance with predetermined criteria.

13. The method as in claim 1, wherein the hedging step includes raising premium by selling call options on a plurality of the equities in the tracking basket.

5 14. The method as in claim 1, wherein the hedging step includes the step of buying put options on the underlying index in an amount sufficient to cover the notional amount of the tracking basket.

10 15. The method as in claim 14, wherein the hedging step further includes selling a selection of options on a plurality of the equities in the tracking basket to raise premium in an amount greater than the cost of buying the put options.

15 16. The method of claim 15, including the additional step, prior to the step of buying put options, of selecting the put options so that the net delta of the tracking basket and the selection of options is below a threshold value.

20 17. The method of claim 15, including the additional step, prior to the step of buying put options, of selecting the put options so that the net delta of the tracking basket and the selection of options is minimized.

18. The method as in claim 1, wherein the hedging step comprises buying put options on a plurality of the equities in the tracking basket and selling call options on a plurality of the equities in the tracking basket.

19. The method as in claim 1, wherein the hedging step includes:
1. performing a skew analysis on at least a portion of the equities in the tracking basket over one or more maturity periods to identify a first set of options each commanding a premium;
 - 5 2. identifying a second set of options each of which has a relative implied volatility which is greater than its historical volatility in a given maturity period; and
 3. balancing the implied volatility percentage from of the options in the first set against the relative implied volatilities of the options in the second set to identify a selection of options to sell.
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20. The method as in claim 19, wherein the hedging step further includes selling the selection of options to raise a premium and purchasing a long put against the underlying index for an amount which is not substantially greater than the premium raised.
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21. a⁴ The method of claim 20, including the additional step, prior to the step of purchasing the long put, of selecting the long put so that the net delta of the portfolio is below a threshold value.
- 20 22. The method of claim 20, including the additional step, prior to the step of purchasing the long put, of selecting the long put so that the net delta of the portfolio is minimized.
23. The method of claim 1, wherein the step of dynamically hedging the tracking basket comprises a re-assessment of the dispersion of the tracking basket.

24. The method of claim 23, wherein the re-assessment occurs periodically.
- 5 25. The method of claim 23, wherein the re-assessment occurs in response to prescribed events.
- 10 26. The method of claim 23, wherein the re-assessment of the dispersion of the tracking basket comprises one or more of the following: rolling the hedge into a later maturity period, trading at least a portion of the hedge, and permitting at least a portion of the hedge to expire.
- 15 27. The method of claim 26, wherein the re-assessment is performed in accordance with predetermined criteria.
- 20 28. (i) The method of claim 26, wherein the re-assessment includes:
1. performing a skew analysis on at least a portion of the equities in the tracking basket over one or more maturity periods to identify a first set of options each commanding a premium;
 2. identifying a second set of options each of which has a relative implied volatility which is greater than its historical volatility in a given maturity period;
 3. balancing the implied volatility percentage from of the options in the first set against the relative implied volatilities of the options in the second set to identify a selection of options to sell;

4. ~~buying put options on the underlying index in an amount sufficient to cover at least the notional amount of the equities in the tracking basket; and~~
5. ~~selling the selection of options to raise premium in an amount greater than the cost of the put options bought in the buying step.~~

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29. A tracking basket comprising a set of equities greater than one in which the equities in the set have, relative to an underlying index, a high degree of correlation to the underlying index and at least a predetermined volatility differential relative to the underlying index.

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30. The tracking basket as in claim 29, wherein the set of equities comprises less than a predetermined percentage of the underlying index.

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31. The tracking basket as in claim 30, wherein the predetermined percentage is 70%, whereby the tracking basket is not substantially identical to the underlying index.

32.00 A software program contained on a computer-readable medium which, when executed

within a digital computer, causes the computer to:

- a) access current price information on a designated underlying index, and each of the equities in a tracking basket established in accordance with prescribed criteria;
- b) perform a skew analysis on at least a portion of the equities in the tracking basket over one or more maturity periods to identify a first set of options each commanding a premium;
- c) identify a second set of options each of which has a relative implied volatility which is greater than its historical volatility in a given maturity period;
- d) balance the implied volatility percentage from of the options in the first set against the relative implied volatilities of the options in the second set to identify a selection of options to sell;
- e) identifying one or more put options which, together with the selection of options to sell, results in a net delta of a portfolio which includes the tracking basket, the selection of options to sell, and the identified put options is below a threshold value; and
- e) display on a monitor connected to the computer the selection of options to sell and the identified put options, whereby the software program automatically identifies a generally risk neutral portfolio.

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